

INDUSTRIAL AIR FILTRATION

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# ESPi RANGE

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600 | 1000 | 2000 | 4000 | CENTRALISED

purified<sup>®</sup>air

# INDUSTRIAL AIR FILTRATION EXPERTS

Purified Air Ltd. has been  
manufacturing market  
leading air filtration  
technology since 1984.

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# ESPi 600/1000

VERTICALLY MOUNTED

Our Oil Mist Units features a double-pass ESP technology and is efficient at 99%. Due to their compact size and built in fan system, they can be directly mounted to a machine tool.

Specifically designed for the industrial market, this compact unit generates low vibrations, making it ideal for mounting onto fine finishing or high-pressure/heat oil machine tools.

A highly efficient oil, mist and smoke collector is effective on all metalworking fluids.



## KEY FEATURES

- ▶ Filters particles down to sub-micron levels
- ▶ Tested to 99% efficiency
- ▶ Low operating costs
- ▶ Minimal maintenance required
- ▶ Specifically designed for industrial application
- ▶ Energy efficient
- ▶ Removes oil, mist and smoke
- ▶ Compact design



# HOW IT'S INSTALLED

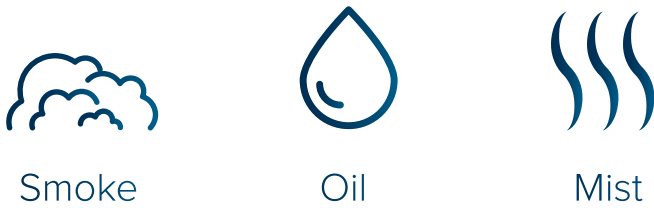
Installations will be directed by the customer and can be either:

- 01 Direct mounted with plenum
- 02 Side Mounted with plenum and gallows bracket
- 03 Stand mounted with plenum separate

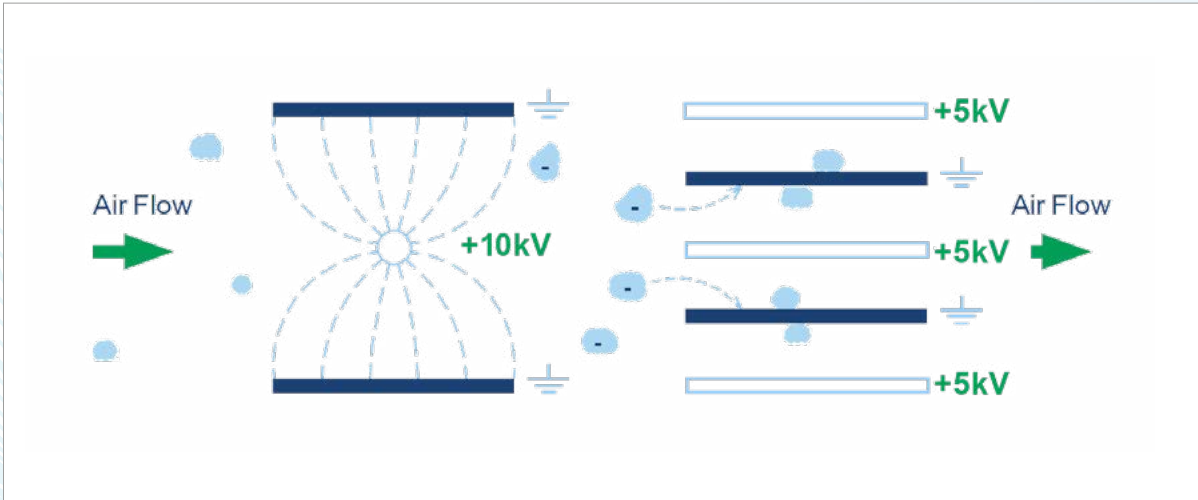
Note: Purified Air do not recommend direct mounting



## FILTERS REMOVE



# THE ELECTROSTATIC PROCESS



The above diagram shows, in a basic visual, how an electrostatic precipitator works:

As air passes into the combined ioniser / collector cell, the particulates in the air stream are polarised. As they continue through the ioniser and between the collector cell plates, the polarised particulates are repelled away from the positively charged plates and attracted to the earthed plates where they stick and so are filtered out of the air flow.

## THE BENEFITS OF ELECTROSTATIC TECHNOLOGY

 Eliminates 99% of particles	 Filters particles down to sub-micron levels	 Compact design	 Energy efficient
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## OUR SERVICES

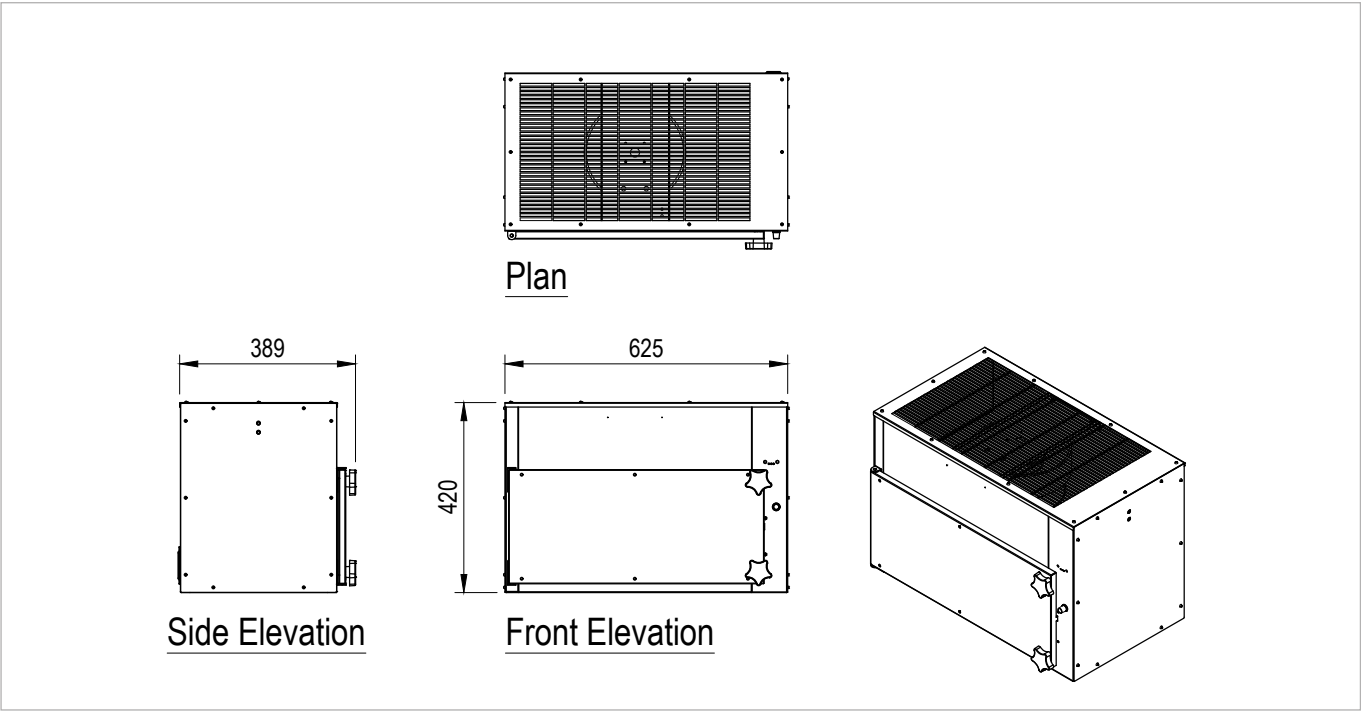
 Design	 Manufacture	 Maintain
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TECHNICAL SPECIFICATION

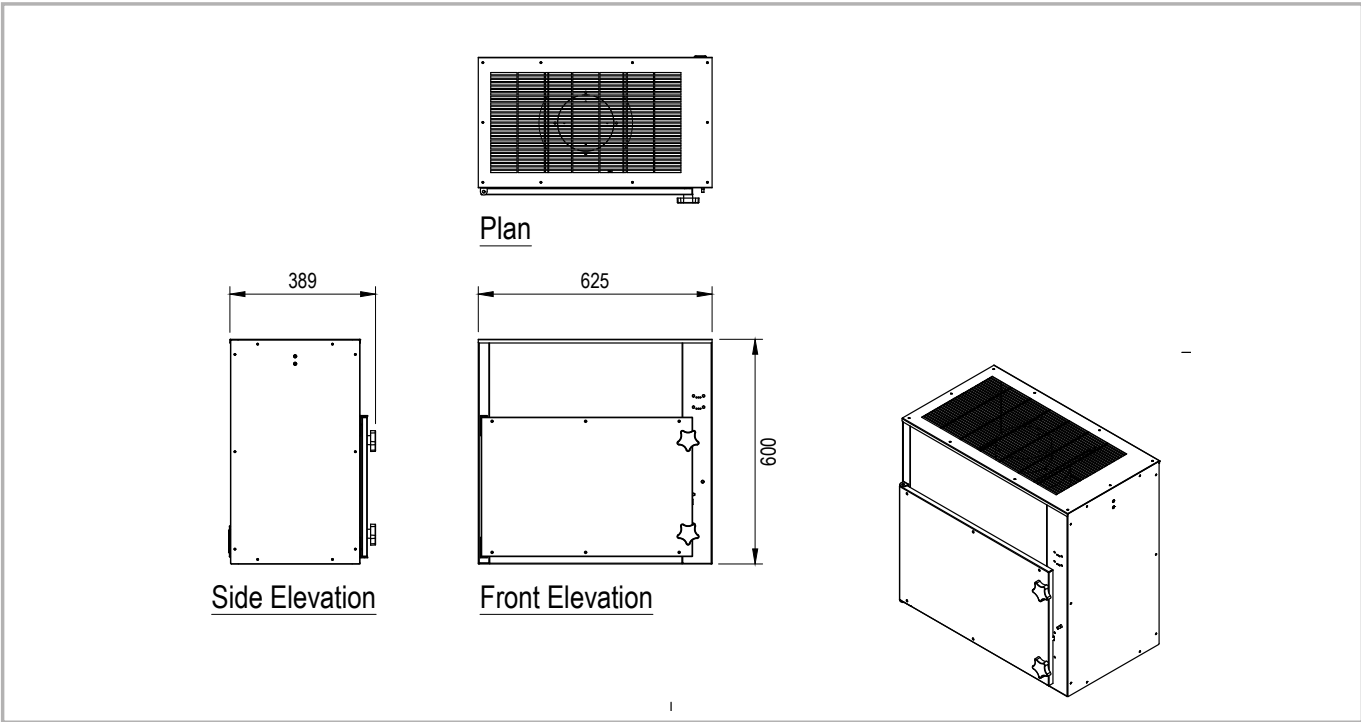
	ESPi 600	ESPi 1000
Electrical Supply	220/240V 50-60Hz	220/240V 50-60Hz
Max Air Volume	up to 600m³/h	up to 1000m³/h
Max Power Consumption	230w	280w
Dimensions (mm)	W 625 mm	W 625 mm
	H 420 mm	H 600 mm
	D 389 mm	D 389 mm
Weight (kg)	30kg	41kg

DRAWINGS

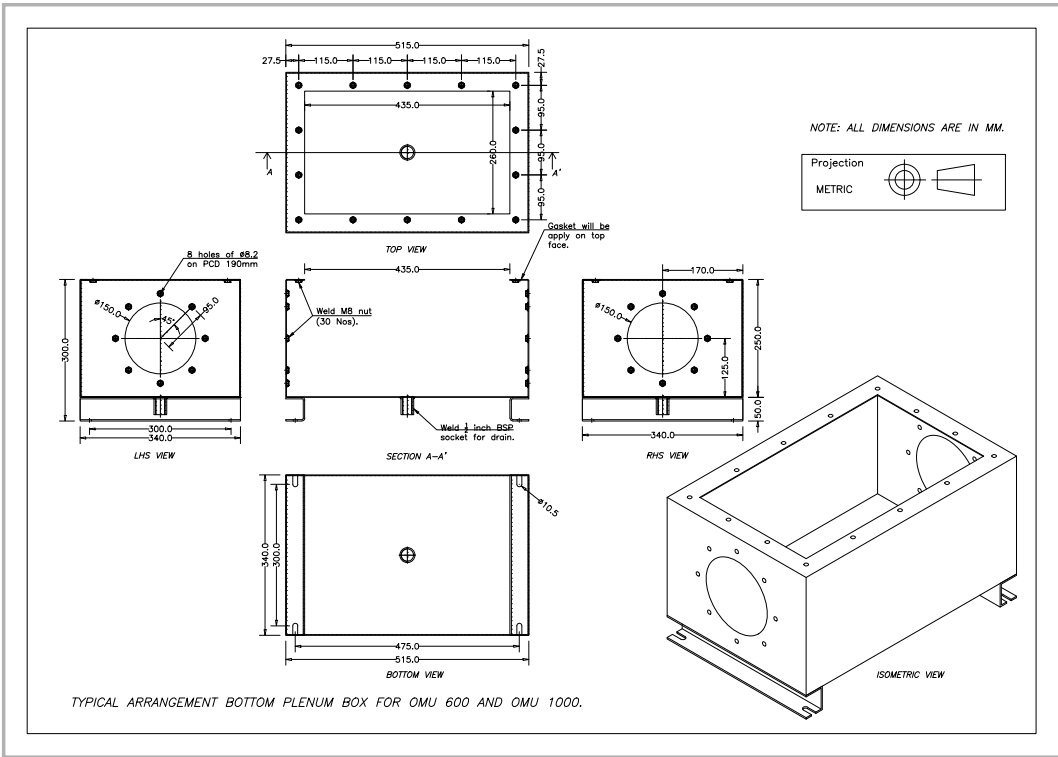
ESPi 600



ESPi 1000



PLENUM



# ESPi 2000/4000

## HORIZONTALLY MOUNTED

Our Electrostatic Precipitators, or ESPs, are up to 99% efficient. Due to their modular design and built-in fan system, the units can be mounted on a machine tool, on a freestanding stand or via a transition to allow for venting to the atmosphere.

Specifically designed to work with more significant airflow volumes of larger high-pressure neat oil machines, this highly efficient oil mist, smoke, and fume collector is effective in most manufacturing processes.



## KEY FEATURES

- ▶ Filters particles down to sub-micron levels
- ▶ Tested to 99% efficiency
- ▶ Low operating costs
- ▶ Minimal maintenance required
- ▶ Specifically designed for industrial application
- ▶ Energy efficient
- ▶ Removes oil, mist and smoke
- ▶ Compact design



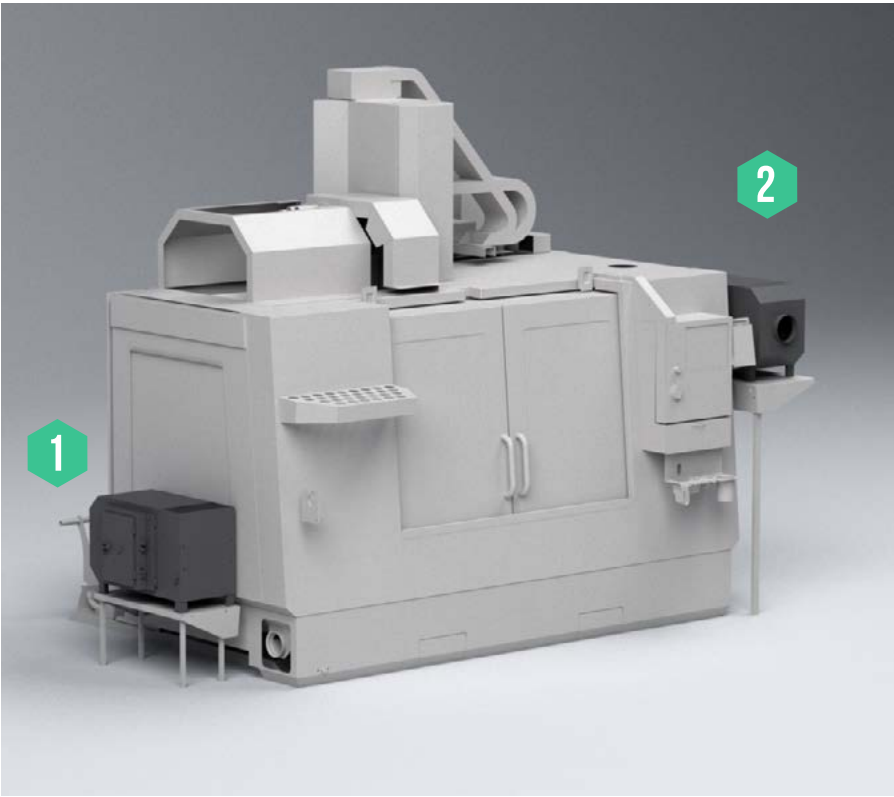
# HOW IT'S INSTALLED

Installations will be directed by the customer and can be either:

- 01 Side Mounted with gallows bracket
- 02 Stand mounted separate

2000/4000 unit can only be directly mounted on larger machinery.

Note: Purified Air do not recommend direct mounting.



## FILTERS REMOVE



Smoke

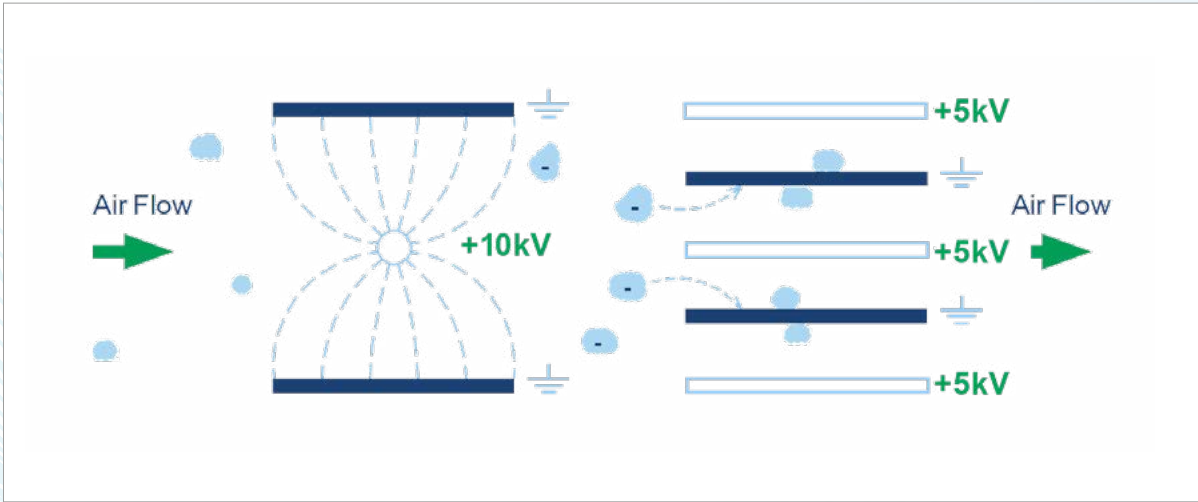


Oil



Mist

# THE ELECTROSTATIC PROCESS



The above diagram shows, in a basic visual, how an electrostatic precipitator works:

As air passes into the combined ioniser / collector cell, the particulates in the air stream are polarised. As they continue through the ioniser and between the collector cell plates, the polarised particulates are repelled away from the positively charged plates and attracted to the earthed plates where they stick and so are filtered out of the air flow.

## THE BENEFITS OF ELECTROSTATIC TECHNOLOGY



Eliminates 99% of particles



Filters particles down to sub-micron levels



Compact design



Energy efficient

## OUR SERVICES



Design



Manufacture



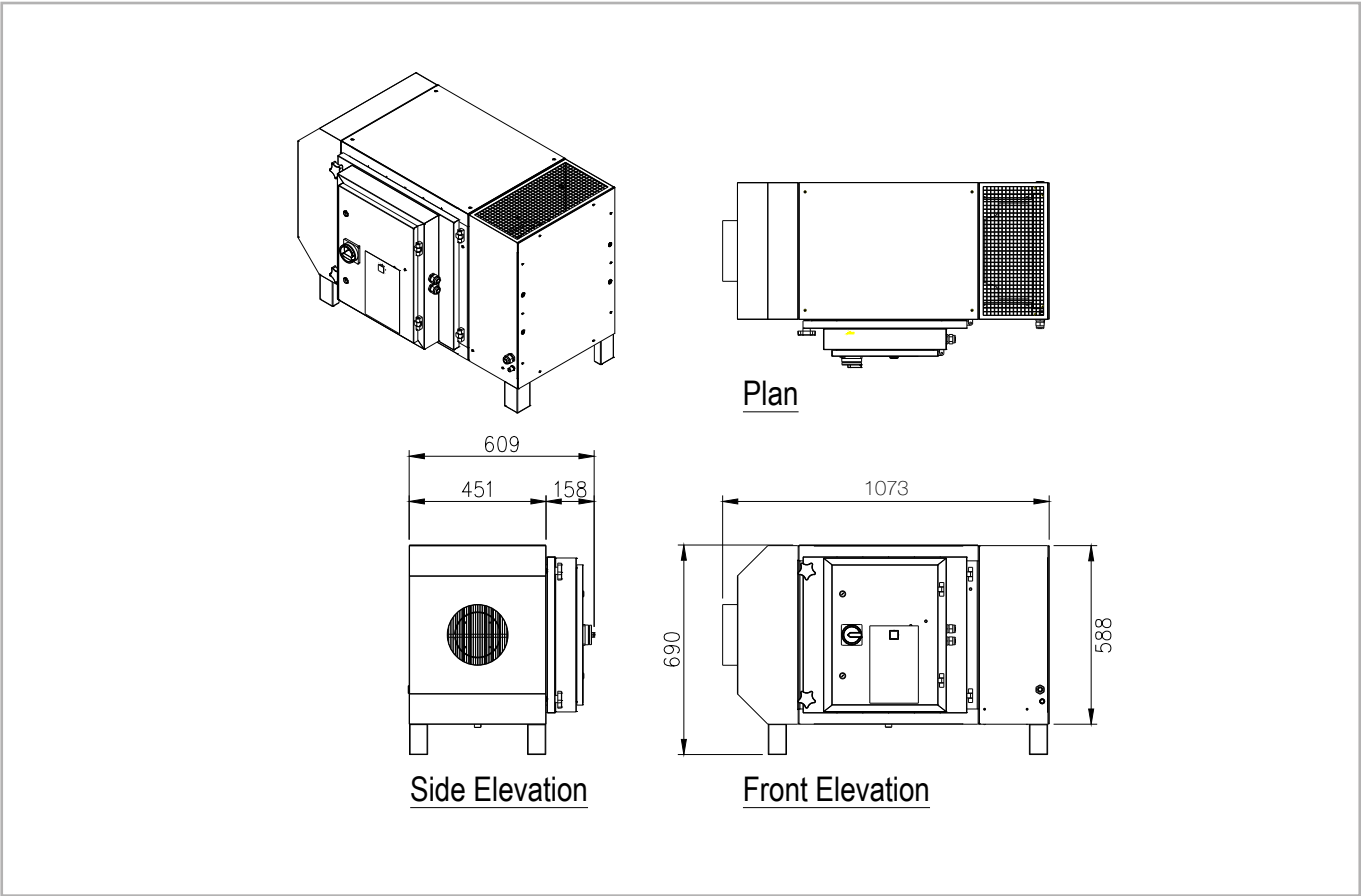
Maintain

TECHNICAL SPECIFICATION

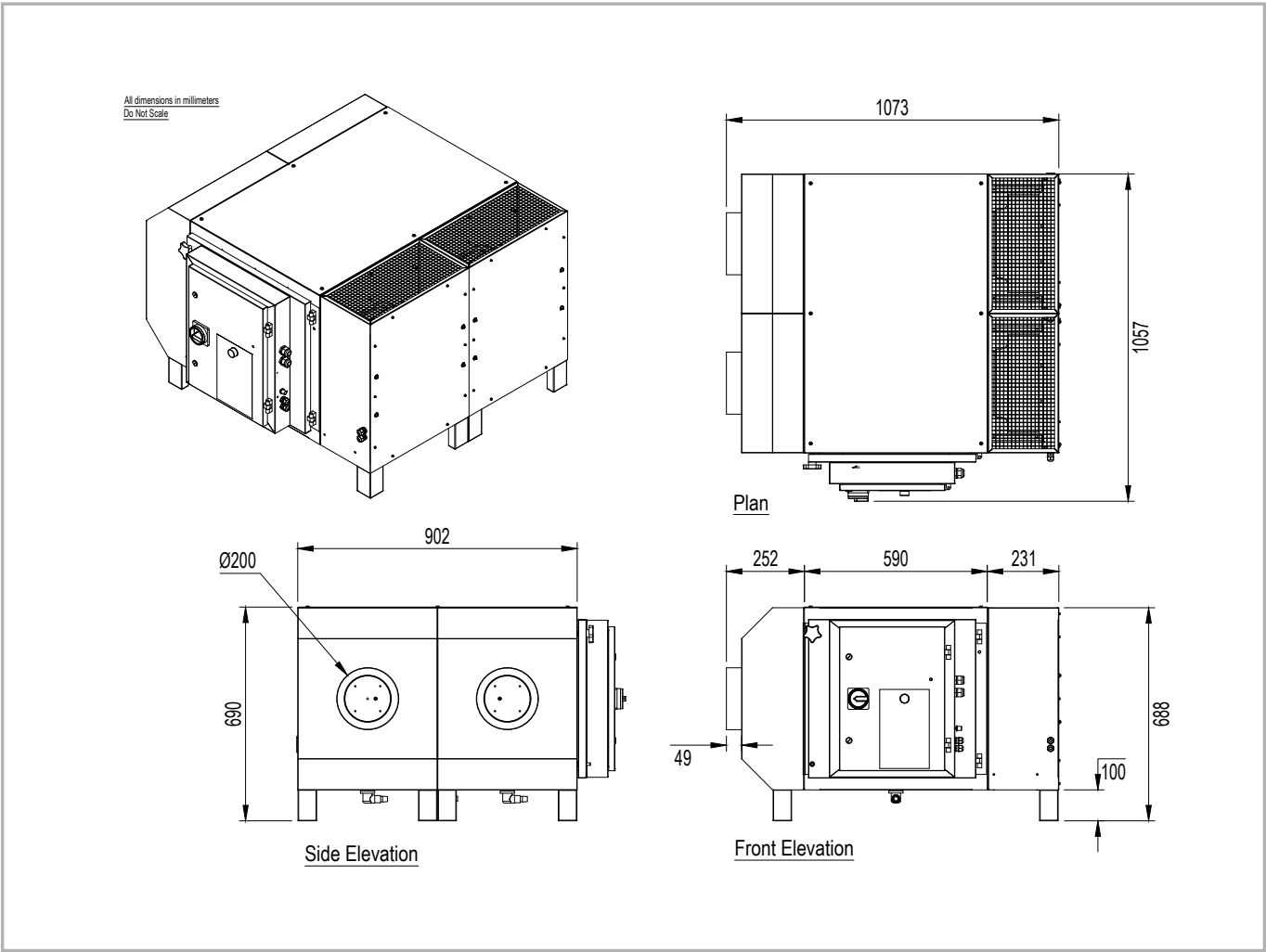
	ESPi 2000	ESPi 4000
Electrical Supply	220/240V 50-60Hz	220/240V 50-60Hz
Max Air Volume	up to 2000m³/h	up to 4000m³/h
Max Power Consumption	540w	1080w
Dimensions (mm)	W 609 mm	W 1057 mm
	H 690 mm	H 690 mm
	D 1073 mm	D 1073 mm
Weight (kg)	66kg	132kg

DRAWINGS

ESPi 2000



ESPi 4000





# ESP CENTRALISED

1500 | 3000 | 4500 | 6000

Our Electrostatic Precipitators, or ESPs, are ideally suited to larger volumes of smoke, fumes and oil mist. The unit's sizeable modular capacity can be configured from 2500m<sup>3</sup>/h up to 60,000m<sup>3</sup>/h. They are IP65-rated and have a built-in sump and drain point.

Access doors and replaceable components enable them to be serviced easily and quickly, reducing workshop downtime. In addition, systems can be configured to remove odour control to offer greater comfort within the workshop or industrial environment by lowering the contaminated air that is exhausted into the atmosphere.

Our products are compact, energy-efficient and affordable for small workshops (cellular) but scalable for large turnkey projects (centralised), delivering a significant ROI.



## KEY FEATURES

- ▶ Eliminates up to 98% of oil mist, fumes and smoke particles
- ▶ Suited for large air volumes
- ▶ Filters particles down to sub-micron levels
- ▶ Designed with an integral sump
- ▶ Modular in design
- ▶ Designed for industrial application
- ▶ Energy efficient: uses 20–50W
- ▶ Quick and easy service access reducing workshop down time
- ▶ IP65 rated for outside location

# HOW IT WORKS

Our ESP units fit in-line with the workshop ducting and can be configured modularly to cope with all extract volume requirements.

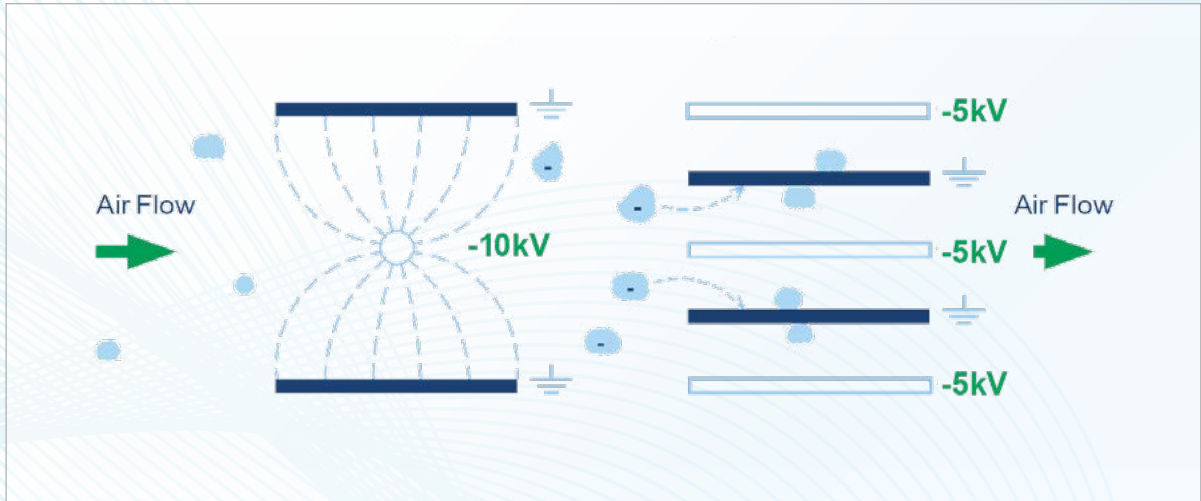
- 01 Smoke, fumes and oil mist particulates
- 02 Air drawn up through the ducting
- 03 ESP - Particulate Control Unit
- 04 Purified air drawn out to exhaust



## TECHNICAL SPECIFICATION

	ESP 1500	ESP 3000	ESP 4500	ESP 6000
Electrical Supply	220/240V 50-60Hz	220/240V 50-60Hz	220/240V 50-60Hz	220/240V 50-60Hz
Max Air Volume	Up to 2520 m³/h	Up to 5040m³/h	Up to 7560m³/h	Up to 10080m³/h
Max Power Consumption	20w	30w	40w	50w
Dimensions (mm)	W 450 mm	W 900 mm	W 1350 mm	W 1800 mm
	H 630 mm	H 630 mm	H 630 mm	H 630 mm
	D 640 mm	D 640 mm	D 640 mm	D 640 mm
Weight (kg)	55kg	85kg	118kg	153kg

# THE ELECTROSTATIC PROCESS



The above diagram shows, in a basic visual, how an electrostatic precipitator works:

As air passes into the combined ioniser / collector cell, the particulates in the air stream are polarised. As they continue through the ioniser and between the collector cell plates,

the polarised particulates are repelled away from the negatively charged plates and attracted to the earthed plates where they stick and so are filtered out of the air flow.

## THE BENEFITS OF ELECTROSTATIC TECHNOLOGY

- Eliminates up to 99% of particles
- Filters particles down to sub-micron levels
- Modular design
- Energy efficient



## ABOUT US

Purified Air's ESPs have been used by some of the world's largest brands since 1984.

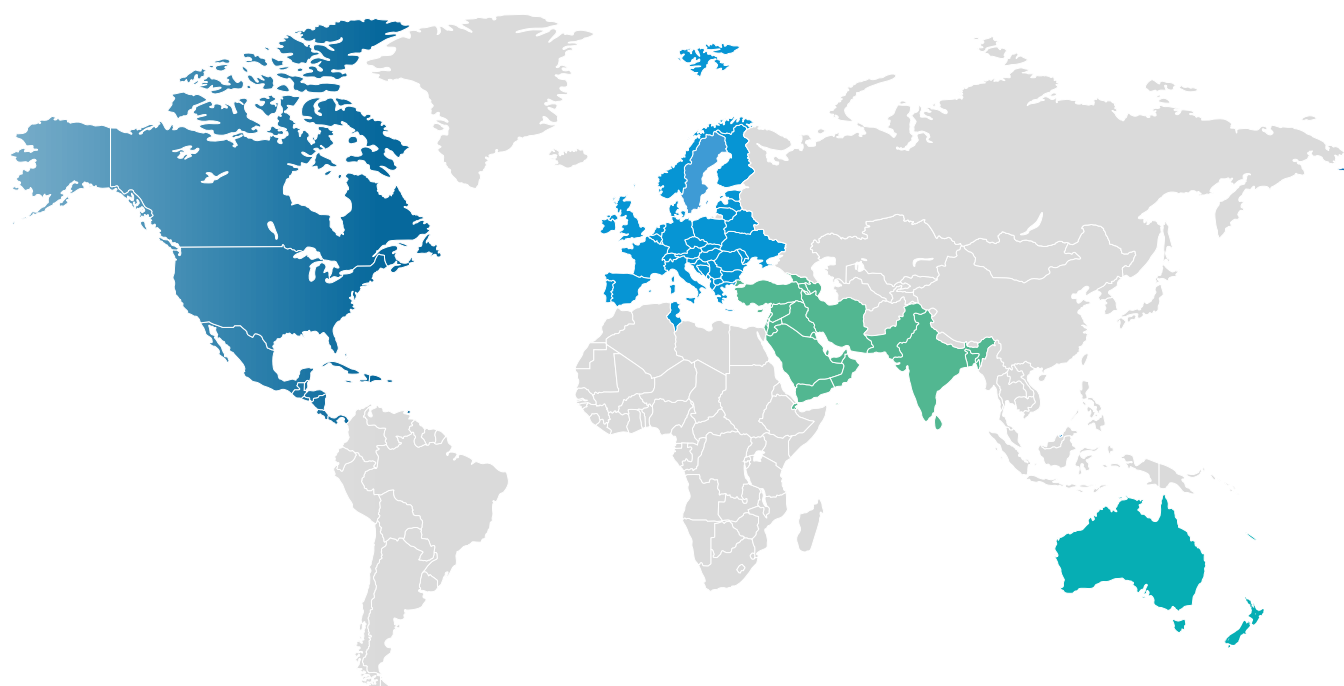
In those 40 years we have developed a technology first approach allowing us to deliver highly efficient products supporting our partners in many different sectors, covering individual cellular extraction through to large turnkey projects. We are the only UK-based manufacturer of industrial/commercial electrostatic precipitators (ESPs). Modular, affordable, and scalable, our systems are unrivalled, with an efficiency of 99% down to 0.01µm.



MARKET LEADERS  
S I N C E  
**1984**

### WORLDWIDE COVERAGE

- United Kingdom
- Middle East
- Europe
- North America
- Asia
- Australasia



# GET IN TOUCH

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